

## REMARKS

This is responsive to the Office Action dated June 5, 2003 in which the Examiner rejects claim 1 for being anticipated by Yamaguchi (US Patent No. 5,874,725) under 35USC §102(b), while agreeing that claims 2-4 as having allowable subject matter. The Examiner also objects to claim 1 and the Abstract for language deficiencies.

The applicants have amended the Abstract, and believe such an amendment overcomes the language deficiencies in the Abstract.

The applicants have amended claim 1 to perfect the claim language as well as to better define the present invention. In particular, the applicants believe that the wording "adapted to", which was objected by the Examiner in the Office Action, is proper claim language which clearly and properly defines the important features of the "changing means". Therefore, the applicants respectfully request to retain the term "adapted to" in the amended claim 1.

As to the merits of the claims, the applicants respectfully traverse the rejections of the Examiner, based on the following detailed explanation as well as the amended claims.

First of all, the applicants believe a brief explanation of the present invention will be helpful in understanding the patentably distinguishing features of the present invention over the cited prior art. The present invention discloses a novel technique applicable in a data carrier manufacturing environment where the data carrier comprises a communication resonant circuit having a resonant frequency. In particular, as taught by the present invention, the resonant frequency of the communication resonant circuit can be changed by changing means which are adapted to increase the resonant frequency ( $f_R$ ) from an initial value to a desired value if the initial value is lower than the desired value, as well as to decrease the resonant frequency ( $f_R$ ) from the initial value to the desired value if the initial value is higher than the desired value, as now defined in the amended claim 1 in clearer language. In other words, with the teaching of the present invention, the resonant frequency of the communication resonant circuit can be changed

in both ways – i.e., can be increased as well as decreased from its initial value to a desired value. This is a distinguishing feature from the prior art where the resonant frequency can be changed in only one way, i.e., either only be increased from its initial value (such as the prior art solution described on page 1 of the Specification), or only be decreased from its initial value (such as disclosed in Yamaguchi cited by the Examiner, which will be explained further below). One of the advantages of the present invention is that there is no need to intentionally keep the initial value of the resonant frequency lower (or higher) than the desired nominal value, since the resonant frequency can be changed in both ways as desired.

The applicants respectfully disagree with the assertion of the Examiner that the above-emphasized distinguishing feature in claim 1 is anticipated by Yamaguchi (US Patent No. 5,874,725). Yamaguchi discloses a batteryless non-contact IC card having an antenna resonance circuit for data transmission and reception. In Yamaguchi, the resonance frequency of the resonant circuit is changed by connection or disconnection of the capacitor to and from the antenna resonance circuit in accordance with the variation of the data. Yamaguchi, however, does not teach or imply that the change of the resonant frequency can be carried out in both ways. Because the changing of the resonant frequency is realized by connection and disconnection of the output capacitor 11 to the resonant circuit, the changing of the resonant frequency can be in only one way, but not in both ways, from its initial value. In fact, as described in all the embodiments throughout Yamaguchi's patent, the resonant frequency is changed to be lower than its original frequency (such as  $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{1}{8}$ , or more, see, e.g., col. 10, lines 27-28, 39-40 and col. 17, lines 57-62), and there can be found no teaching or implication that the original frequency can be changed by increasing the original value.

Therefore, the applicants believe that claim 1, with the distinguishing feature that “ the changing means (9) are adapted to increase the resonant frequency ( $f_R$ ) from an initial value to a desired value if the initial value is lower than the desired value, as well as to decrease the

resonant frequency ( $f_R$ ) from the initial value to the desired value if the initial value is higher than the desired value", is not anticipated by Yamaguchi patent under 35USC §102(b), and is thus patentable.

At least for the same reasons, dependent claims 2-5 are also patentable as each of them includes all the limitations in claim 1. In particular, claims 2-4 define the distinguishing features that "the changing means is formed by a single trimming plate made of a metal, forms a part of the capacitor configuration with two electrode plates, and is placed inside the coil turns of the communication coil", which, as admitted by the Examiner, are not disclosed in the prior art. Therefore, the patentability of claims 2-4 are further strengthened.

The applicants respectfully request reconsideration allowance of the application in view of the amendment and the above remarks. The Examiner is authorized to deduct any fees believed due from our Deposit Account No. 11-0223.

Respectfully submitted,

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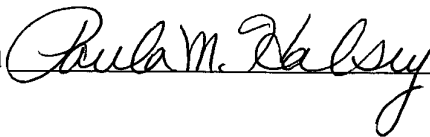
  
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Dated August 21, 2003

Signed



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